

Space Weather Prediction Testbed: Developing a Robust R2O Process

Rodney Viereck
SWPC

ABSTRACT

The NOAA Space Weather Prediction Center and its operational Space Weather Forecast Office (SWFO) have clearly defined needs and requirements for improved products and services. The Space Weather Prediction Testbed (SWPT) has explored a number of different approaches to model selection, development, and transition. The SWPT has worked with the research community to identify appropriate models to transition to operations to address the growing demands of the SWFO and its customers. The SWPT has also undertaken development of models “in-house” when there are appropriate NWS assets and resources available. The pros and cons of some of these activities will be discussed. Due to the potential of a national scale infrastructure impact during an extreme event, space weather has recently received high level attention within the US government and internationally. This attention has focused, in part, on the Research to Operations process and the impediments and bottlenecks in the efforts to address the space weather needs of customers and of society. As a result, agencies involved in space weather operations, research and mitigation have been directed to improve upon the current processes. We describe preliminary efforts to establish a multi-agency "joint center for space weather modeling" which will further facilitate the space weather R2O process, expedite the transition of research models into operations, and maintain and upgrade those models as appropriate throughout their lifecycle.